REMARKS/ARGUMENTS

The application has been amended in response to the Office Action dated September 26, 2003. The pending and amended claims overcome the rejections of claims 1-20 based on the applied references. New claim 21 has been added. No new matter has been added. Reconsideration is respectfully requested.

Pending Rejections

Claims 1, 6-10, 15-18 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,918,232 to Pouschine *et al.* ("Pouschine *et al.*").

Claims 2, 5, 11 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. Pouschine *et al.*, further in view of U.S. Patent No. 6,574,623 to Leung ("Leung").

Claims 3-4, 12-13 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pouschine et al. further in view of U.S. Patent No. 5,584,024 to Shwartz ("Shwartz").

REJECTIONS UNDER 35 U.S.C. §103(a)

Although Applicants disagree with the propriety of the rejections proposed by the Office Action for original claims 1-20, Applicants have nevertheless amended the claims to clarify distinctions between the claims and the cited references.

Specifically, independent claims 1, 10 and 19 have been amended to further distinguish the claimed invention from the cited references. Claim 1, a system claim, now recites that the query assembly rules are "used by the query structure assembly module to evaluate the desired

data set." Claim 10, a method claim, now recites the step of "generating a query structure based upon a database schema associated with the data source, query assembly rules, and a desired data result set, the query assembly rules being used to evaluate the desired data set." Claim 19 now includes the following additional limitation: "code for causing the processor to construct a query structure based upon a plurality of query assembly rules, the desired data result set, and the evaluations of the plurality of sets of tables, the at least one intermediate data set, the plurality of methods for generating intermediate data sets, and the plurality of join paths, the query assembly rules being used to evaluate the desired data set." These amendments highlight a distinguishing feature over Pouschine *et al.*, namely the ability to enhance the creation of ***query structures*** by taking into account the desired data set and one or more query assembly rules. Put another way, by using query assembly rules to evaluate the desired data set up front -- e.g., during construction of a particular query structure -- the presently claimed inventions are able to more efficiently retrieve and process data. None of the cited references teach or suggest such a limitation.

Applicant agrees with the Examiner that the second embodiment of Pouschine *et al.* does not teach or suggest "basing the defining of a query structure on a plurality of query assembly rules," but respectfully disputes the contention that the first embodiment does. Indeed, Applicant submits that the first embodiment of Pouschine *et al.* merely discloses the use of rules to develop or create multidimensional data models or hyperstructures, which are to be contained in a computer memory[1]:

[1] Applicant points out that the first embodiment is a method for ***creating*** multidimensional data models or hyperstructures that are stored in a computer memory, while the (continued...)

> This embodiment provides at least one rule domain associated with one or more cells, each rule domain including ***one or more rules for assigning values to the associated cells***. A Domain Modeling Rule Set is prepared which prioritizes the rules and determines which of the rules will provide the values associated with each of the cells in the hyperstructure.

(emphasis added).

Thus, the first embodiment of Pouschine *et al.* merely discloses the use of rules during the data modeling step. Applicant submits such a step is not the same as using rules to ***evaluate the desired data set*** at the query structure formation step, as recited by the pending claims.

Moreover, Pouschine *et al.* does not disclose many of the other recitations in the pending claims, contrary to the suggestion in the Office Action. For example, in rejecting claims 7 and 16, the Office Action cites to col. 14, lines 9-13 of Pouschine *et al.* as allegedly disclosing the step of accessing a syntax description, but that discussion addresses the viewing of SQL queries generated by a calculation engine. Pouschine *et al.* also does not disclose the features of dependent claims 6, 8, 9, 15, 17, 18, and 20.

Regarding claim 2, 5, 11, and 14, Applicant respectfully disagrees that Leung discloses the recitations thereof. The cited excerpt of Leung, for example, while generally disclosing consideration of available access paths and table size, says nothing about: (1) evaluating the size of a plurality of identified tables for returning the desired data result set, or (2) evaluating a plurality of join paths used in returning the desired data result set.

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second embodiment is a method of ***querying*** multidimensional data models or hyperstructures. In other words, the second embodiment discloses a way to query the data models created in the first embodiment. Neither the first nor second embodiment, however, bears any reasonable relationship to the claimed invention's use of query assembly rules to ***create query structures***.

Similarly, Applicant respectfully disagrees that Shwartz discloses the express recitations of claims 3-4 and 12-13. The Office Action relies on the disclosure in Shwartz of a "[c]onceptual layer 2 [that] is composed of information derived from database 3, including table and column information." Applicant submits such a statement fails to teach or suggest the express recitations of claims 3-4 and 12-13.

Moreover, the Office Action does not address many of the other recitations in the pending claims. For example, the Office Action does not specifically address the recitation "generation of a query structure based on a database schema" found in pending claim 10. Numerous other recitations of the pending claims have gone unaddressed.

Further, the Office Action fails to set forth a proper motivation to combine the disclosures of: (1) Pouschine *et al.*'s first and second embodiments, (2) Pouschine *et al.* and Leung, and (3) Pouschine *et al.* and Shwartz. The cited motivations are based on hindsight from viewing the claims of the present application.

Applicant respectfully submits that in view of these amendments and the remarks expressed above regarding the rejections under §103(a), claims 1, 10, and 19 are now allowable over the cited art of record. Each of the remaining claims depends from either claim 1, 10 or 19, and is therefore allowable for at least the reasons expressed above.

CONCLUSION

Since the cited references, taken either singly or in combination, fail to teach or suggest the combinations set forth in the pending claims, and further fail to provide any motivation or suggestion of the desirability of modifying the structures or methods to arrive at the claimed combinations, Applicant submits that the pending claims are allowable over the cited references. Accordingly, Applicant respectfully requests that the Examiner withdraw his rejections, allow the pending claims and pass the application to issue.

If the Examiner believes that a telephone conference or interview would advance prosecution of this application in any manner, the undersigned stands ready to conduct such a conference at the convenience of the Examiner.

If there are any fees due under 37 C.F.R. §1.116 or §1.117 which are not enclosed herewith, including any fees required for extension of time under 37 C.F.R. §1.136, please charge such fees to our Deposit Account No. 50-0206.

Respectfully submitted,

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